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10/716,124	11/18/2003	Min-Jeong Kang	678-1104 (P10576)	6104

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EXAMINER
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NGUYEN, KIMNHUNG T

ART UNIT	PAPER NUMBER
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2629

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11/14/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/716,124	Applicant(s) KANG ET AL.	
	Examiner Kimnhung Nguyen	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 August 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-13, 15 and 16 is/are rejected.
- 7) ☒ Claim(s) 9 and 14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This application has been examined. The claims 1-16 are pending. The examination results are as following.

#### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-8, 10-13 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takada (US 5,850,477) in view of Sachs et al. (US 5,956,034).

As to claim 1, Takada discloses in fig. 2, a pen input device (11) comprising:

a touch screen panel (8) for receiving a pen input (11) from a user and displaying input data corresponding to the received pen input (see a handwritten character entered on a touch panel by using a pen is registered as one stroke data, see abstract);

an entry field generating portion (CPU2) for generating at least one entry field (rectangular region 52, 53, 54 figs. 12A-12C) (based on a boundary line (see fig. 17, see division boundary line) of an entry frame drawn by the user;

a controller (9) for performing a control operation in such a manner that the input data (Richard Miller 51, fig. 12B) is displayed spatially inside the generated entry field (52), and the entry field's size is newly set to be suitable for the input data's size (because the entry field has a size and suitable to provide the ("Richard Miller" in fig.13);

and a memory unit (7) for storing recognition information related to the entry field and the input data (because the memory 7 related CPU2, ROM and RAM, and correspondence to character inputted in handwriting to a size of width, see col. 11, lines 21-42). Takada does not disclose a resizing the entry field to be suitable for the input data's size whenever input data is input to the generated entry field.

Sachs et al. discloses in fig. 3B, a touch-sensitive display screen comprises a resizing the entry field to be suitable for the input data's size whenever input data is input to the generated entry field (see the size of the font on text 110 is display and can then be enlarged or reduce, see col. 6, lines 8-22).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement a input pen device comprising a touch-sensitive display screen comprises a resizing the entry field as taught by Sachs et al. into the system of Takada for producing the claimed invention because this would provide for the larger font sizes, an anti-aliased" display technique and thus to provide character smoothing (see Sachs et al., see col. 6, lines 20-22).

As to claim 2, Takada discloses further, wherein the entry field (rectangular region 52) generating portion generates the entry field by smoothing the boundary line of the drawn entry frame (see fig. 17) and based on a previously stored entry frame shape.

As to claim 3, Takada discloses further, wherein the entry field (52 includes a virtual cell 51), with a size (virtual cell 51 has a size) that is adjusted to be suitable for the size of the input data (see the created stroke data is displayed on the rectangular coordinates of a specific size being after the cursor display position, see col. 4, lines 45-45-48).

As to claim 4, Takada discloses further, wherein the input data is handwritten data (see abstract), the controller (9, because the control circuit 9 controls the CPU2, ROM and RAM) and correspondence to character inputted in handwriting to a size of width, see col. 11, lines 21-42) detects a beginning point and an end point of strokes of the handwritten data, and, provides information of a finally modified size of the virtual cell obtained when the end point is detected in the entry field generating portion (see fig. 14B, see start point of stroke data A and end point of stroke data B).

As to claim 5, Takada disclose further, wherein the entry field generating portion newly sets the entry field's size based on the information of the finally modified size of the virtual cell (51) (because the entry field has a size and suitable to provide the "Richard Miller" in figs. 12,13, and see the created stroke data is displayed on the rectangular coordinates of a specific size being after the cursor display position, see col. 4, lines 45-45-48, and see col. 13, lines 62-67).

As to claim 6, Takada discloses further, wherein the controller (9) recognizes the handwritten data of the virtual cell as one stroke group (see figs. 14A-14B), and converts the recognized handwritten data to computer-recognizable data (see process of the program, see fig. 17).

As to claim 7, Takada discloses further, wherein, in response to a user's request, the controller sets an inherent attribute of a virtual cell of the entry field (see stroke A and B, fig. 15C).

As to claim 8, Takada discloses further, wherein the controller duplicates the entry field to generate a page-based database (see stroke data display coordinate table, see fig. 9) and

enables the memory unit (7) to store the page-based database (because program is stalled in the memory, see col. 8, lines 52-64).

As to claim 10, Takada discloses in fig. 1, a pen input method comprising the steps of:

(a) displaying an entry frame drawn by a user through a pen input on a touch screen panel (see handwritten character entered on a touch panel by using a pen, see abstract, see col. 9, lines 66-67, col. 10, lines 1-3);

(b) detecting a boundary line of the entry frame (see division boundary line see fig.17), setting an entry field based on the detected boundary line (see division boundary line, see fig. 17), and generating a virtual cell (stroke 51, see figs. 12-13) corresponding to the entry field for entering data;

(c) modifying the virtual cell's size (see stroke 51 has a size) in real time in response to entry of data into the virtual cell (see the created stroke data is displayed on the rectangular coordinates of a specific size being after the cursor display position, see col. 4, lines 45-45-48); and

(d) when the entry of the data into the virtual cell is completed, newly setting the entry field to be suitable for the modified virtual cell's size (because the entry field has a size and suitable to provide the "Richard Miller" in figs. 12,13, (see the created stroke data is displayed on the rectangular coordinates of a specific size being after the cursor display position, see col. 4, lines 45-48, and see col. 13, lines 62-67). Takada does not disclose resizing the entry field to be suitable for the entry of the data's size.

Sachs et al. discloses in fig. 3B, a touch-sensitive display screen comprises a resizing the entry field to be suitable for the input data's size whenever input data is input to the generated

entry field (see the size of the font on text 110 is display and can then be enlarged or reduce, see col. 6, lines 8-22).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement a touch-sensitive display screen comprises a resizing the entry field as taught by Sachs et al. into the system of Takada for producing the claimed invention because this would provide for the larger font sizes, an anti-aliased" display technique and thus to provide character smoothing (see Sachs et al., see col. 6, lines 20-22).

As to claim 11, Takada discloses further the pen input method as set forth in claim 10, wherein, in the step (b), the setting of the entry field is performed by smoothing the detected boundary line based on a previously stored entry frame shape (see fig. 17).

As to claim 12, Takada discloses further the pen input method as set forth in claim 10, wherein, when the data entered into the virtual cell is handwritten data, the step (c) comprises the steps of:

(c1) detecting a beginning point and an end point of the handwritten data (see start point and end point of fig. 15c);

(c2) modifying the virtual cell's size while displaying a trace of the handwritten data (see the created stroke data is displayed on the rectangular coordinates of a specific size being after the cursor display position, see col. 4, lines 45-45-48, and see col. 13, lines 62-67);  
and

(c3) storing information on the modified virtual cell's size during a period until the end point is detected (see end point of line segment Si, see fig. 17, see col. 17, lines 62-67).

As to claim 13, Takada discloses the pen input method as set forth in claim 10, further comprising the step of :

(e) in response to a user's request, setting an inherent attribute of the virtual cell of the entry field (because the attribute of virtual cell of the entry field is dependent on the user's request).

As to claim 15 is rejected as the same claim 8.

As to claim 16 is rejected as the same claim 6.

***Allowable Subject Matter***

5. Claim 9 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: None of the cited art teaches or suggests that wherein the inherent attributes defines the entry field to be one of a fixed entry field in which the virtual cell's size and the entered data cannot be modified by the user, and a reserved entry field in which the virtual cell's size, and the entered data cannot be modified by the user, and defines a type of the entry data as claim 9 and 14.

***Response To Arguments***

6. Applicant's arguments filed on 8/30/07 have been fully considered but they are not persuasive.

Applicant states that "Takada describes an input and display apparatus with an editing device for changing stroke data. In FIG. 1, Takada shows a hand written character input/display



apparatus 1 that includes a CPU 2, a ROM 3, a RAM 4, an I/O port 5, a display panel 6, a memory 7, a touch panel 8, a control circuit 9, an A/D converter 10, and an input pen 11. A user provides input to the apparatus 1 by touching the input pen 11 to the touch panel 8 and providing input to an input/display area 20, as shown in FIGS. 6A-6D. The input/display area 20 of Takada is a constant size and, as conceded by the Examiner, Takada nowhere discusses changing the size of the input/display"area 20".

Applicant also states that "Sachs describes a method for viewing electronic reading materials and the Examiner relies on FIG. 3 and col. 6, lines 8-22 of Sachs for suggesting the recitations of Claims 1 and 10 regarding resizing the entry field to be suitable for the input data's size whenever input data is input to the generated entry field. In FIG. 3A, Sachs shows a display page 60 where display text 100, graphics and/or photographs that constitute electronic reading materials are displayed. In col. 6, lines 8-22, Sachs explains that when text 110 displayed on the display screen 60 is not of a size that suits the user, the size of the font on text 110 is displayed and can then be enlarged or reduced by the user".

"Initially, it is noted that Sachs provides no input to the portable display unit 32 other than operational control by a user via a conventional stylus pen. Sachs merely displays data and any adjustment of the displayed data is user controlled, and is not performed based solely on control of the CPU 80".

Examiner respectively disagrees because Takada does disclose a pen input device (pen) comprising a touch screen panel for receiving a pen input from the user; an entry field (rectangular region 52, 53, 54 figs. 12A-12C), a controller, a memory unit for storing information related to the entry field and the input data. However, Takada does not disclose a

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resizing the entry field to be suitable for the input data's size whenever input data is input to the generated entry field.

Sachs et al. discloses in fig. 3B, a touch-sensitive display screen with a pen input device (63, fig. 2A) comprises a resizing the entry field to be suitable for the input data's size whenever input data is input to the generated entry field (see the size of the font on text 110 is display and can then be enlarged or reduce, see col. 6, lines 8-22), and the system is controlled by controlling program identifies to the user (see col. 5, lines 18-26).

Therefore, the combination of Takada and Sachs are satisfied for its intended purpose. For these reasons, the rejections are maintained.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


*Correspondence*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimnhung Nguyen whose telephone number is (571) 272-7698. The examiner can normally be reached on MON-FRI, FROM 8:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe can be reached on (571) 272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kimnhung Nguyen  
November 9, 2007



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